

**REMARKS**

Claims 1 through 9 remain pending. In response to the non-final Office Action dated July 11, 2006, claim 6 has been amended. Care has been taken to avoid adding new matter. A petition for two month extension of the period for response, with appropriate fee charge authorization, is filed herewith. Favorable reconsideration of the application is respectfully solicited.

Claims 1, 3 and 7 have been rejected under the first paragraph of 35 U.S.C. § 112 because “the subject matter description of ‘outer configuration’ in the specification is non-existent (Office Action, paragraph 3, re claim 1)” and for lacking description of the “configuration reversed” requirement, directed to claims 3 and 7.

The rejection is respectfully traversed. It is submitted that the specification, at pages 9-11, in explanation of Figs. 7 and 8 of the drawings, comply with the requirements of 35 U.S.C. § 112. Step 705, for example, is an element of the process by which the reduced configuration model and the configuration model are compared so that, for simplification purposes, a partial configuration can disappear or be reversed. Fig. 8 illustrates outer configurations in which the outer corner rounding of configuration illustration 802 disappears in configuration illustration 803 or is reversed in configuration illustration 805. Both the specification description and the drawing figures provide enabling support for the claimed features. Withdrawal of the rejection is respectfully solicited.

Claim 1 has been rejected further under 35 U.S.C. § 101 as being drawn to non-statutory subject matter. The rejection is respectfully traversed. Claim 1 recites a configuration model producing apparatus and means plus function elements of the apparatus. These elements are structural elements that are to be interpreted as the disclosed corresponding elements of the

computer apparatus shown in Fig. 1. The claim does not require software per se, but includes the apparatus for performing the functions claimed. Apparatus claims fall within the statutory categories of invention sanctioned by 35 U.S.C. § 101. Withdrawal of the rejection is respectfully solicited.

Claims 1, 2, 4, 6 and 8 have been rejected under 35 U.S.C. § 102(b) as being anticipated by the Mobley publication (Mobley). Claims 3, 5, 7 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Mobley in view of the Inoue publication (Inoue). The rejections are respectfully traversed.

The present invention provides for automatically extracting a simplification candidate portion from an original configuration model. Unnecessary portion(s) are taken out from the original configuration model by expanding or reducing the configuration model partially. A candidate portion to be removed is determined if the difference is less than a predetermined reference. All independent claims require, *inter alia*, either by original presentation, or by amendment of claim 6, the following recitation:

a simplification candidate portion automatic extracting means for taking out a difference from an original configuration model by expanding or reducing the configuration model partially, thereby deciding to be a candidate to be removed if the difference is less than a predetermined reference.

Reference is made to the description in lines 14-26 on page 7 and lines 4-24 on page 10 of the specification, as well as Figs. 7 and 8. Shown in the right-hand side of Fig. 8 are examples of expanding or reducing the configuration model, such as a surface thereof. It is submitted that the above excerpted claim recitation is not disclosed or suggested by Mobley and Inoue, taken either individually or in combination.

While Mobley discloses “automatic geometry defeaturing,” an object to be simplified or defeatured is determined by a radius of a cylindrical surface, a conical surface, a spherical surface, a toroidal surface or an arc of the configuration model. Mobley can be applied only to a part, but it cannot be applied onto the portions of a plane and a free surface or sculptured surface.

Inoue discloses a method of combining areas or regions, so as to simplify or defeature the configuration, in particular, by estimating an area or width of a surface, smoothness on a boarder, and/or flatness of the area, etc. Thus, in this method the object of simplification or defeaturing is defined in the form of the area or region, and therefore it cannot be produced from the CAD model. In other words, Inoue discloses only an idea of clustering (or grouping) of areas, i.e., nothing is defined as to a CAD model. On the other hand, according to the claimed invention, the surfaces and/or the lines of the CAD model are extended/cut out, so as to produce a simplified model of configuration as the CAD model.

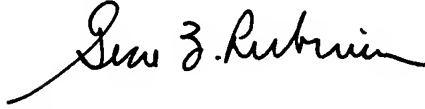
It is submitted, therefore, that claims 1 through 9 are patentably distinguishable. Withdrawal of the rejections of record and allowance of the application are respectfully solicited. To the extent necessary, a petition for an extension of time under 37 C.F.R. 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper,

**Application No.: 10/630,801**

including extension of time fees, to Deposit Account 500417 and please credit any excess fees to such deposit account.

Respectfully submitted,

McDERMOTT WILL & EMERY LLP

A handwritten signature in black ink, appearing to read "Gene Z. Robinson", written over a horizontal line.

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